



EXPLANATION OF MAP

This map displays historical disaster occurrence data, for six major disaster types, in Central America, South America and the Caribbean, overlain upon a USGS digital elevation model (DEM) hillshade. The map is to serve as a quick reference guide for determining the spatial spread and severity of these major disaster types, as well as to identify prevailing regional disaster patterns. For example, it can be easily discerned that the Caribbean experiences a much higher rate of wind storms/hurricanes than the rest of Latin America. Flooding affects the northern reaches of South America and earthquakes and volcanic activity are highly concentrated along the Andes range.

The data shown were collected by the World Health Organization Collaborating Centre for Research on the Epidemiology of Disasters' (CREM) Emergency Events Database (EM-DAT). EMDAT has collected information on over 12,800 major disasters occurring since 1900. Data was collected for the region focusing specifically on landslides, wind/hurricanes, flooding, volcanic activity, earthquakes, and drought. The number of events since 1900 was compiled and displayed by country for each of the six smaller disaster specific maps. The larger map displays all disaster types by country, displaying the number of disasters as a percentage in the pie charts.

For each map a smaller inset map was included to show the islands of the Caribbean in greater detail. In each inset the symbology is identical to the larger map of which it is part.

The maps are overlain upon USGS DEM hillshades. The DEM source is 30 meter resolution GTOPO30 data. The hillshade, produced from the DEM, accurately depicts the local topography of the region and enables further interpretation and analysis of the landscape's influence on disasters. Again, the Andes are an example of this capability. The visualization of the mountain range allows for a greater understanding of why the Andean countries experience a much higher percentage of volcanic activity than the other Latin American and Caribbean nations.

In addition to the main layers of data in this map, we have included accurate political boundaries, obtained from ESRI data and major city locations from the USGS Global GIS data set, a digital atlas of the entire planet.

References:

- The OFDA/CREM International Disaster Database. www.em-dat.net Université Catholique de Louvain - Brussels - Belgium.
- USGS Global GIS - Global Coverage DVD. USGS Digital Data Series DDS-62H. 2003. Published by the American Geological Institute.
- ESRI World Cities Shapefile.

Disaster Maps for Central America, South America, and the Caribbean, 1900-2007

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